MADE IN HONG KONG

91-0159-22

DICK SMITH ELECTRONICS

VZ300

PERSONAL COLOUR COMPUTER

JOYSTICK × 2
with interface

X-7315

INSTRUCTION MANUAL

These fast-response Joysticks offer you 8-direction flexibility and both an ARM and FIRE control button. The interface allows your computer to support these Joysticks.

CAUTION!

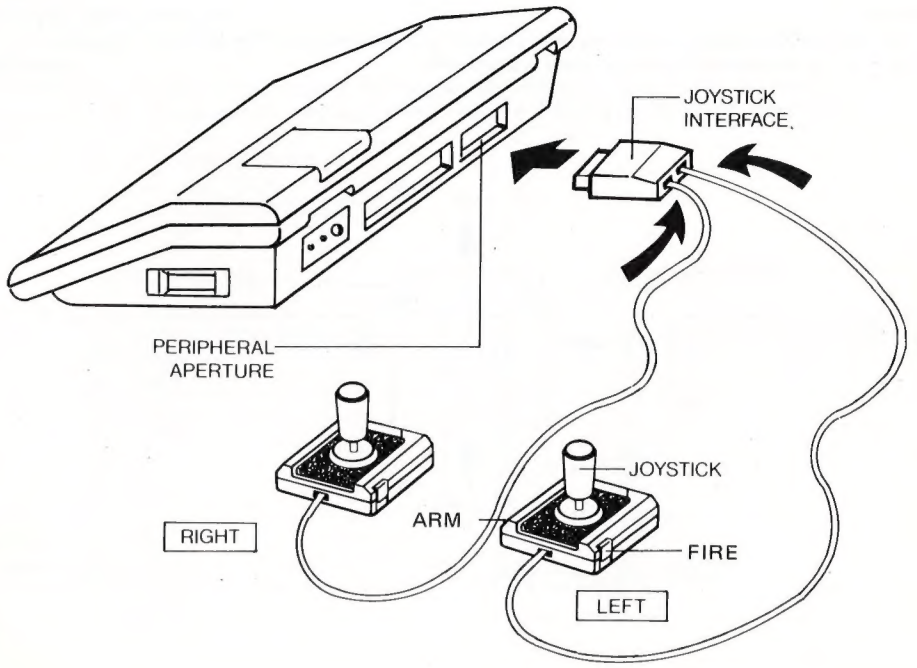
1) Disconnect all power to computer before connecting any expansion module.
2) Keep expansion sockets of both computer and expansion moudles clean and free of liquids of any kind.

NOTE: FAILURE TO FOLLOW THESE PRECAUTIONARY STEPS MAY CAUSE IRREPARABLE DAMAGE TO YOUR EQUIPMENT.

INSTALLATION

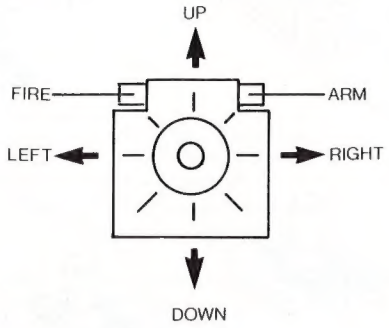
1) Check to be sure that the power is off.
2) Turn to the back panel of the computer.
3) Remove the "PERIPHERAL" cover by taking out the screws.
4) PLUG the Joystick Interface into the "PERIPHERAL" socket slowly and smoothly. Check to be sure the Interface is fully inserted and firmly attached.
5) Turn on the power to the computer and check that computer operation has not changed. (For correct procedure, refer to your computer User's Manel)

If the TV screen does not display the "READY"message, turn off the power, remove the Interface unit from the computer, re-insert, slowly and smoothly. Then turn on the power and go through the computer User Manual procedure.



JOYSTICK

There are totally 8 directions on your joystick together with the Arm and Fire buttons. You may feel free to move the joystick to any of these 8 directions.



TECHNICAL INFORMATION

BASIC access

Using the BASIC language, you can access the left and right Joysticks by using the A=(INP(N) AND 31) command. The following tables give the various values of A and N for different directions or buttons.

NOTE: L=left/R=right/U=up/D=down

CENTRE = 31

LEFT JOYSTICK

N		A	DIRECTIONS OR BUTTONS
43		26	L&U
43		25	L&D
43		22	R&U
43		21	R&D
43		30	U
43		29	D
43		27	L
43		23	R
43		15	FIRE
39		60	ARM
34		15	ARM

RIGHT JOYSTICK

N		A	DIRECTIONS OR BUTTONS
46		26	L&U
46		25	L&D
46		22	R&U
46		21	R&D
46		30	U
46		29	D
46		27	L
46		23	R
46		15	FIRE
45		30	ARM
45		15	ARM

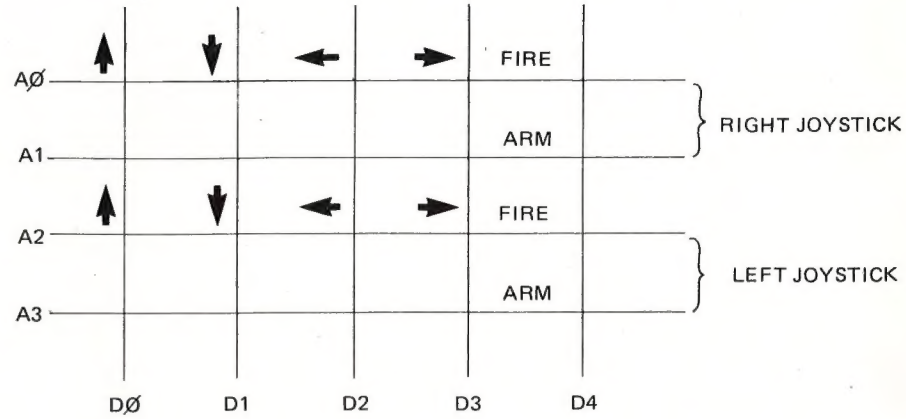
By checking the value of A, you can determine the status of the left or right Joystick. For example, the following BASIC program will check the left, right, up and down directions of the LEFT joystick.

Example:

```
1Ø CLS
2ØA = (INP (43) AND 31)
3Ø IF A = 30 THEN PRINT "UP": GO TO 2Ø
4Ø IF A =29 THEN PRINT "DOWN": GO TO 2Ø
5Ø IF A= 27 THEN PRINT "LEFT": GO TO 2Ø
6Ø IFA =23 THEN PRINT "RIGHT"
7Ø GO TO 2Ø
```

When this program is running, you can move the LEFT Joystick in any direction, and that direction will appear on screen.
To stop this program, press the CTRL and — keys at the same time to get BREAK

Assembly Language access
In assembly language, you can access the right or left Joystick by utilizing the following Joystick matrix.



Use the IN instruction to read the Joystick whose address ranges from hexadecimal 20 to 2F. You can write a program to scan the address lines and check which data bit has become 0.